

# How GOLD helped to make New Zealand...



*With the compliments of the Bank of New Zealand*

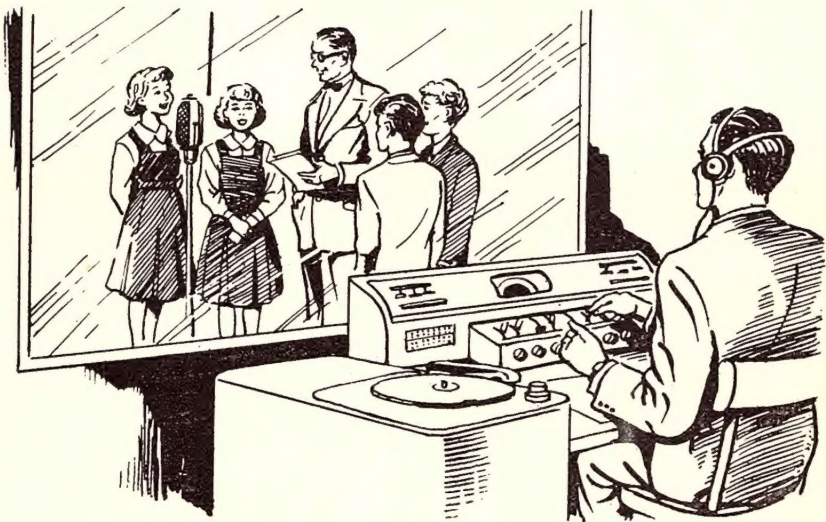
THIS BOOKLET BELONGS TO—

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STANDARD .....

SCHOOL .....





Suppose that you were appearing on a Children's Radio Quiz session and the Quizmaster asked the question: "With what do you associate Gabriel's Gully . . . and where is it?"

Would **you** be able to give the right answer?

Certainly there are many people who would answer straight away: "Gabriel's Gully is in Otago and it is the place where gold was first discovered in New Zealand."

If **you** were to give this answer the Quizmaster **might** say it was correct enough . . . because Radio Quizmasters are sometimes inclined to be a little on the kind side. They occasionally allow an answer that is almost right but not **exactly** right.

So, if he **did** allow your answer, the Quizmaster would have to go on and explain that some gold had been found in various parts of New Zealand long before the rush to Gabriel's Gully, which began in the middle of the year 1861.

## EXCITING DISCOVERY

But Gabriel's Gully was the most exciting discovery . . . the first big,

rich gold find in New Zealand. It brought gold seekers hurrying to New Zealand by thousands. It was the start of the "Marvellous Decade" of wealth from gold; ten years in which there was a great advance in prosperity and population.

Who, then, was Gabriel?

Not so many people know this. He was Gabriel Read, the son of a wealthy Tasmanian farmer. It seems he went looking for gold not because he wanted money but just for the love of adventuring. Before he came to New Zealand he took part in gold rushes to California and Australia. So by the time he came to this country he knew a lot about looking for gold, which the gold miners called "prospecting."

When Gabriel Read began prospecting in Central Otago he knew that some gold had been found in various places. One day a farmer told him that a man they called "Black Peter," who was a native of Bombay in India and whose real name was Edward Peters, had been prospecting in the valleys of the Tuapeka River, a tributary of the Clutha.



*George Munroe talking to Gabriel Read.*

## FINDING THE GOLD

Gabriel Read went to Tuapeka River and a shepherd named George Munroe who lived there told him what Black Peter and his friends were doing. It seemed they had been finding gold in many places but had become discouraged through not finding any really rich patch of gold.

We know today that it was probably because Black Peter and his friends did not know enough about gold prospecting that they failed to get a lot of gold.

In a very short time Gabriel Read found rich gold. It was in a little valley near where the shepherd George Munroe and his wife lived. Poor Black Peter had been near this valley, even perhaps right in it. But he missed the rich gold and Gabriel Read found it. The little valley has been known ever since as Gabriel's Gully. It is near what is now the town of Lawrence but in those days it was in a remote area where nobody lived except a few shepherds.

Such is the story of Gabriel's Gully, the centre of the Tuapeka gold field . . . New Zealand's first "bonanza" gold strike.

## THE RUSH TO THE DIGGINGS

When the discovery was announced in Dunedin there was wild excitement. All sorts of people gave up their work on farms and in the town and set out for Tuapeka to become gold diggers in and around Gabriel's Gully. There was no road to the diggings, just a rough track across the Lammerlaw mountains.

The track was good enough for the few farmers and shepherds who lived in this inland area. But with an unending stream of gold seekers passing over it—some walking, some with horses, waggons and carts of all sizes, the track soon became a muddy quagmire. In addition, many difficult streams had to be crossed and there were no bridges. But despite all difficulties hundreds arrived at the diggings each day. Before long Gabriel's Gully and the whole Tuapeka area was over-run by thousands of eager gold seekers.

## SEARCH FOR NEW FIELDS

As the news of Gabriel's Gully spread round the world, ships arrived packed with more thousands of gold seekers. Many were gold miners from the goldfields of California and Australia.

Rather than struggle for a place on the overcrowded Tuapeka field some of these men decided to go looking for new areas of gold. The fact that one rich gold deposit had been found made them sure there must be others. Soon this belief was being proved right.

Other enormously rich gold deposits were found—and new rushes started—first of all further inland in Otago, then to the West Coast, Nelson and Marlborough and finally to the Coromandel and Thames area in the Auckland Province.



## THE GOLDEN PROVINCE

Otago became the "Golden Province" of New Zealand. Further rich finds followed Gabriel Read's discovery. In less than two years, thousands of gold diggers were at work on goldfields reaching all the way up the Clutha River to the big lakes in the centre of the province. Other discoveries took the diggers to the Mount Ida region north of Dunedin.

Before the start of this gold rush the whole of Central Otago was practically in the wild state that had existed before the white man came to New Zealand. Nobody lived there except a few sheep farmers and the shepherds who tended their flocks of sheep. But the eager gold diggers, who came streaming into any area where there was a report of gold, soon changed all this.

The diggers who were lucky and found areas of rich gold for themselves, needed supplies of food and clothing and other stores. Those who were unlucky and did not find gold, but had used up what money and

supplies they had brought with them, needed work to get money to live. So before long many of the men who had been drawn into the area by the lure of gold were busily employed on making roads and building townships to serve the goldfields.

## FIRST SETTLERS

The gold rush helped to speed the settlement of New Zealand. You can see how by following it on the map. Suppose, for a moment, you had been an eager gold digger in those far off days . . . always wanting to try your luck where the newest rich gold find had been made.

In 1861 you would have been on the Tuapeka, searching for gold either in Gabriel's Gully or in one of the nearby valleys. The Tuapeka River is a tributary of the Clutha, about a quarter of the way up its course from where it flows into the sea.

A year later, in 1862, you would have heard of "The Dunstan" where an exciting discovery of rich gold had

*Gabriel's Gully.*

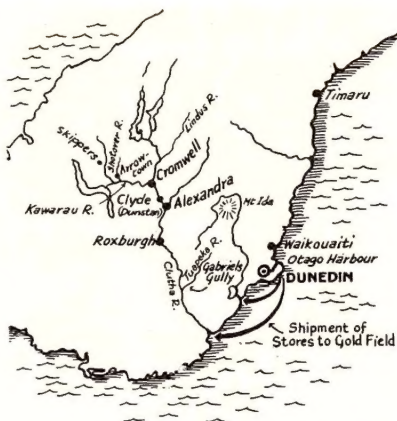


been made in the bed of the Clutha River itself. This is much further up the Clutha, almost to the point where it divides into two branches, the Upper Clutha and the Kawarau rivers. The town of Clyde (between Alexandra and Cromwell) stands today where the original mining township of the Dunstan sprang up. At first it was called Hartley's township, Hartley being one of the two men who found the first gold in this area.

## THE WAY TO DUNSTAN

Actually, if you had been one of those early gold diggers you would not have been able to go straight from Tuapeka to the Dunstan field. That way would have been much too long and difficult. Probably you would have first gone back to Dunedin. Then you would have travelled north to Waikouaiti in the little paddle steamer, which would have been packed with hundreds of eager gold-seekers. From Waikouaiti, you and the others would have taken the easier, but still up-and-down mountainous journey overland to the new goldfield.

*An early gold digger with pan.*



*Map showing Otago gold bearing district.*

## RICH GOLD VALLEYS

Once at the Dunstan field you would soon have heard of other discoveries. Two tributaries of the Kawarau—the Arrow and the Shotover—were found to be running through wonderfully rich gold-bearing valleys.

Arrowtown stands today on the site of the original goldfield centre, which at first was called Fox's after William Fox, the leader of the party of men who first found out about the gold in the Arrow and managed to get out a lot of gold for themselves before their good fortune was discovered. The Shotover, where the first discovery was made by a shepherd employed by a sheep farmer in the area, was described by gold miners from California as "the richest river in the world."

## TRYING YOUR LUCK

Had you decided to stay in Otago you might have moved on to the Mount Ida region. But, as an eager gold prospector, you may have preferred to try your luck elsewhere.



You would have heard that, although there had been no exciting discovery, some hundreds of gold diggers had been doing quite well for themselves in the northern part of the Nelson Province. "Someday," you might have said to yourself, "someone will make a rich strike around there, and it might well be me."

Suppose you had made the difficult journey from Dunedin to Nelson in a little coastal sailing boat in the year 1864. When you arrived you would have found the town in a state of great excitement. Your guess would have been right. Rich finds had been made in the Marlborough Province and in what then was the remote and unsettled area of the West Coast.

## TOWNS GROW OVERNIGHT

So many people streamed out of Nelson to the Marlborough goldfield, which was only some thirty miles away, that there were soon 10,000 people on the goldfield and the town of Havelock sprang up where there had previously been few white settlers. Almost as quickly, other towns sprang up on the West Coast. At first the only way to get there was by ship from Nelson. But soon a road was pushed through from Christchurch to Hokitika.

Before the goldrush, the whole population of Westland had been less than one thousand. In two years after the discovery of gold there were more than 50 thousand people and a number of growing towns—Hokitika, Westport, Charleston, Brighton.

## WORK FOR WAGES

As an eager gold digger you might have joined in the rush to the West Coast and been one of the lucky ones and found gold quite quickly. On the other hand you might have been un-

lucky and after months of hard work have found little or no gold. Then you might have had no money left to buy food and other necessities. You would have had to look for a job so as to get some money right away to keep you alive. You might have gone working on road making, on a farm, or found work in the new towns which were being built. This happened to many thousands of men during the gold rush. Also many of the men who did find enough gold to make them suddenly quite wealthy used their wealth to build shops or workshops or to set themselves up as farmers.

Thus all over Otago, all through Westland and in the Nelson and



*An early gold-town.*

Marlborough Provinces the gold rush had the effect of hastening settlement and development of the country as a land of farms and towns connected by roads.

## QUARTZ-GOLD MINING GOLD IN SOLID ROCK

Because of the gold rush there were soon many more people in the

South Island than in the North Island. Otago became the leading Province in New Zealand, with more people and more wealth being produced.

But in the long run the North Island got its share of wealth from gold. For several reasons it took longer for this to come about. One reason was that most of the gold in the North Island was in a different form from that in the South Island. Most of the North Island gold was quartz gold. Quartz gold is in solid rock which has to be dug out and crushed to separate the gold. This requires heavy machinery and mining equipment which only men, or companies, with capital (a large amount of money) can afford.

## NUGGETS

It was not quartz gold that lured the eager gold diggers into the mountains of Central Otago and Westland. They were always looking for alluvial gold. Alluvial gold consists of many pieces of gold washed down from the mountains by streams and rivers. Some of these pieces were solid lumps—gold stones called nuggets—which a lucky gold digger might see and pick up. Most of it, however, was

*Many men were soon busy on making roads and building towns.*



in small pieces—little more than specks. Because this washing down process had been going on from prehistoric times—for thousands of years—a great deal of this gold piled up in some places. Gold is very heavy and sinks down through any formation of sand or earth. So alluvial gold gathered on the hard rock bottoms of stream beds where the shape was cupped or uneven enough to make a trap for it.

The gold prospector who found a likely spot in a stream bed would dig down to the sand near the rock bottom. Then he would shovel some of this sand into a tin dish, or as he called it, a pan. By swishing water round in this pan he could make the lighter sand swirl to the top so he could throw it out with the water. By doing this several times he would eventually wash away all the sand and get to the specks of heavy gold at the bottom of the pan.

## "POOR MAN'S" GOLD

On the South Island goldfields those who were lucky enough to get to the right spots first were able to get a lot of gold just by using this simple panning process. Alluvial gold, because it did not require any expensive machinery to obtain, was called by the gold diggers "poor man's" gold. It was such gold—gold which could make a poor man rich overnight—that made the excitement of the gold rush and brought thousands hurrying to the diggings.

There was no exciting find of rich alluvial gold in the North Island. Many rivers contained some gold but in quantities too small to be worth bothering about.

Yet it was the North Island which had the first official gold field in New Zealand. This was in the Kapanga Stream on the Coromandel Peninsula.



In 1852, nearly nine years before Gabriel Read's discovery at Tuapeka, a man named Ring, who like Gabriel Read had also been in California, was paid a reward for a gold strike in the Kapanga Stream. This created a stir in Auckland and there was a rush of a few hundred gold seekers to the area. But they found very little alluvial gold and most of them soon drifted away.

## QUARTZ MINING

For some years after that it was not possible to do much gold prospecting in the Coromandel area because the powerful Maori tribes there would not agree to it until 1867. Even then, the prospectors found the South Island pick and shovel methods not much use with quartz gold and it was not until the 1870's that a real start was made with getting out the enormously rich quartz gold of the Coromandel and Thames Valley area. But once companies did get started with proper crushing plants and mining equipment this soon proved to be the most valuable gold field of all—one that was to continue producing considerable gold wealth almost up to the present day.

The largest of the quartz-gold mines in the Thames-Coromandel area was that known as the Martha Mine. This mine was established near the present-day town of Waihi in 1878. It continued to produce gold until 1952. By that time £28,000,000 worth of gold had been taken out. In 1909, when activity at the mine was at its greatest, 1500 men were employed.

In order to get this gold an immense amount of quartz had to be dug from the ground and crushed by machinery. Can you imagine a hole as deep as the height of the biggest city building in Wellington or Auck-



*Martha Mine.*

land? Well, many of the quartz mines had holes called mine "shafts" much deeper than this. The Martha Mine had six shafts. Some of these shafts were deeper than twelve times the height of a big city building.

## ON THE LEVEL

Of course a shaft would not be taken down to that great depth right away. It would be dug down just as far as the first layer of profitable gold-bearing quartz. The miners would then dig a tunnel through the quartz for as long as it lasted. This tunnel was called a "level". Once all the gold-bearing quartz was taken from one level the shaft would be dug down a bit deeper and another level opened. The number 4 shaft of the Martha Mine, for instance, had 15 levels, the first at 128 ft. depth and the last at 1,880 ft. depth. Each level varied in length, and some were nearly 500 yards long.

This kind of mining was a far cry from the simple panning operations of the first gold prospectors in the South Island. But by the time the Martha and other mines in the Thames/Coromandel area had begun

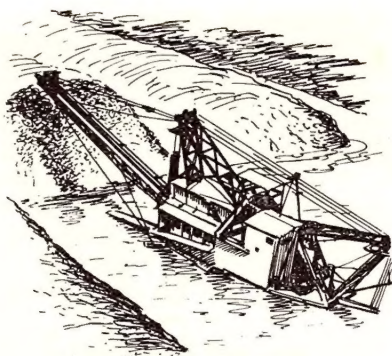
producing, methods of winning alluvial gold in the South Island had also changed. There was only enough "Poor Man's" gold for the lucky few among the first prospectors. Those who did not find pockets of gold caught in the rock near the surface of stream beds had to look for alluvial gold that was more difficult to obtain. More digging had to be done to get to where the gold lay and much greater quantities of sand and spoil had to be washed to get the gold out. Something better than just a tin dish was necessary to do this.

## SLUICING

The first improvements on the dish were the simple sluice boxes and "cradles" some of the gold seekers were able to build for themselves right from the start. They were arrangements of wooden boxing in which a much larger quantity of spoil could be handled than in a pan. As goldfields became established these arrangements became larger and more elaborate.

When it was found that there was alluvial gold in some of the hill faces of the gold bearing valleys as well as in the stream beds a method of using hoses for sluicing was intro-

*Sluicing.*



*A gold dredge at work.*

duced. The kind of hose needed for this work is like that used by fire-brigades only even bigger and more powerful.

## HOSING AWAY HILLSIDES

You know how easily a garden hose will wash away soil if it is turned on one spot for a while. Well, the sluicing hose is strong enough to do the same to a whole hillside. With an ordinary hose you can break the stream of water by putting your hand in front of it. Sluicing hoses send out such a fierce jet of water that, it is said, a strong man could not cut through it with an axe.

Hoses like this tear into banks of gold-bearing ground and wash out great quantities in a short time. The force of the water carries it down through sluice box arrangements where the gold and the gold-bearing sand are separated.

## GOLD DREDGES

Another method of obtaining gold—the one most used on the South Island gold fields in more recent times—is the use of the gold dredge. A gold dredge is a large mechanical digger equipped with machinery to



extract the gold from sand and earth it digs up. Gold dredges, able to do the equivalent work of hundreds of "pick and shovel and pan" miners, operated on river beds extracting gold from pay dirt that would have been much too poor to be worth while for the prospector of the early days.

## The Value of the Gold Rush

The gold rush has provided many of the most interesting and exciting chapters in the story of the making of New Zealand. But for gold, the country might have been much poorer today. The way of the pioneer would have been harder and his progress slower. For the most part good use was made of the extra bonus nature provided in the gold valleys of the South Island and the quartz rock in the North. In one way or another gold helped the country as a whole.

The Gabriel's Gully discovery came at just the right time for New Zealand. In fact, had the gold rush not taken place the whole colonization project could have ended in failure. The separate settlements were too out of touch with each other for effective combined effort. Each settlement was trying to build its own New Zealand. As a result, too many people were becoming discouraged. They could see no end to a life of all work and no play—constant toil and hardship, a desperate struggle to just keep alive.

## Looking Ahead

Some men of vision realised that more than just local effort was needed to build a new country. Somehow some extra wealth had to be gained that was not just for Auckland—or for Wellington, Christchurch,

Dunedin, New Plymouth or Nelson—but for the use of the country as a whole.

One such man was a leading Auckland settler named Thomas Russell. He and others thought that New Zealand should have its own bank.

The time was ripe for such a development. The withdrawal of the Oriental Bank Corporation in May 1861, and the prospect of another overseas bank taking its place, spurred the Auckland citizens into taking action to establish an entirely New Zealand bank.

The first meeting to discuss the project was held in the New Zealand Insurance Company's building, pre-



*The lure of Gold drew thousands of settlers to New Zealand.*

sided over by James Williamson, one of the founders of that Company. Russell and other Auckland businessmen, who later became the first directors of the Bank, attended the meeting.

## A Bank for New Zealand

It was recognised by these men that New Zealand should have its own bank—not just a branch of some big overseas bank but a real New Zealand bank that would be devoted to

building up New Zealand. So, in October 1861, the first branch of the Bank of New Zealand was opened in Auckland. Other branches soon followed because the founders were determined to make the bank a real New Zealand bank, giving banking service everywhere it was required from one end of the country to the other.

The Dunedin branch was opened a few weeks after the first branch in Auckland. Soon arrangements were made to serve the gold prospectors—not only the prospectors who had gone to the Tuapeka field following the discovery of Gabriel's Gully but also those who were looking for new gold strikes further afield. So it came about that wherever gold prospectors found gold, however remote and difficult of access the area might be, it would not be long before an agent of the Bank of New Zealand would be on the spot—a man they knew they could trust, who would make sure they got full value for their hard-won gold.

### Goldfields Service

What a boon this was to the gold diggers! Just imagine yourself one of them, as a gold prospector of the 1860's. You had found gold, staked

#### *On-the-spot Banking Service.*



your claim and started working. You already had a sizeable bagful of gold. But what could you do with it? It might take you many days, or even weeks, to get to the nearest point of civilization. You would not want to do that. You would not want to leave your claim. You would want to stay there and obtain as much gold as you could. You would have to carry your gold with you everywhere you went. You would not dare to leave it anywhere in case it might be stolen. And gold is very heavy—much heavier than lead. If you were, say on the Tuapeka goldfield—where there were also a lot of other prospectors—there would have been men to sell you stores of food and other things you needed in return for some of your gold. Many storekeepers in fact did set up in business on these lines. But this was at best a difficult and unsatisfactory business, trying to use the raw gold from the ground as money. It was not possible to find the exact value because all gold contains impurities when it comes from the ground. You would not have known whom to trust.

### Needed Help

Under such conditions it would have been most necessary to find a means of ensuring that your gold was safe, of receiving full value for it and of obtaining cash with which to buy the things you needed to carry on.

It was just such services that the Bank of New Zealand provided.

From soon after the gold discovery at Gabriel's Gully in 1861 right up until the present day, the Bank of New Zealand has served and helped the gold miners. When you read about New Zealand's famous goldfields you will find that the Bank of New Zealand officers were always there with the earliest prospectors. Bank branches and agencies were set



up and banking service provided—firstly for the gold diggers and then for the others who followed—store-keepers, transporters, entertainers and others. When a new town grew up on a goldfield the Bank of New Zealand was generally one of the first buildings.

## Gold Today

Searching for gold on a regular and organised basis has, until recently, been done by huge dredges working through thousands of tons of gravel, soil and sand. But as the cost of operating became increasingly expensive compared to the value of the gold dust discovered, one by one the dredges went out of business. Today it's unlikely to find a gold dredge working anywhere in New Zealand. Nevertheless the search for gold still goes on. Important American and South African companies are sending skilled geologists to New Zealand looking for gold. Where the government believes investigations are serious and thorough it gives these prospectors every assistance. One of the most important jobs of the Government Mines Department is to encourage the search for minerals of value and it has not given up hope that a great new gold strike might yet be announced.

## Assaying

Assaying is finding the exact value of the gold sent in. But, you will say, isn't all gold the same value? The answer, strange as it may seem is, No. The reason is because, except for certain very special purposes, gold is never pure gold. When it is, it is much too soft for any ordinary purpose. In order to have the hardness to make the rigid bar of gold, which is called an ingot, gold must have a small proportion of other metals,



*Assaying*

such as silver, iron and copper mixed with it. The extra metals (which in small quantities give gold hardness) vary from one lot of gold to another. There is nearly always silver in gold. But the proportion of silver will be different in one gold from another.

So, you will see, in order to find out the exact value of any particular lot of gold, it is necessary to find out what other metals are in it and just how much of each one.

## Smelting

Smelting is just the process of melting the gold so that all the unwanted impurities, like sand, can be separated out and disposed of. The gold is allowed to cool in a mould to become the solid bar, or ingot.

Then the assaying is carried out. A small sample is taken from the bar. Its weight is measured very carefully on a special, very accurate scale kept for this purpose. Then this sample is melted again and by various chemical processes, which are very complicated and require expert skill, the exact quantity of other metals in the gold is found.

In this way the exact value of the gold is found and the miner receives the full value of his labour.



*Opening this door...opens many others*

choose a  
career  
with the  
BNZ

The door you pass through when you start work with the BNZ is the first of many doors that remain open to the young man with ability and the will to use it. These doors could be labelled: 1. An absorbing and challenging career. 2. Status in the community. 3. Security. 4. Unlimited opportunities for advancement.

This last door could eventually be marked with your name—as the manager of a busy Branch or as an important BNZ executive—playing a vital role in the financial heart of the nation.

**BANK of NEW ZEALAND**

*The Dominion's largest and leading Bank*



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